CLAIMS

What We Claim Is:

1. A method for processing data for a system model including the steps of providing a model specification having a plurality of types of items including at least one first item type wherein associated data is obtained from data input into the system and at least one second item type wherein associated data is obtained from an operation performed on the data associated with at least one item stored in a first database, inputting data into the system, searching the input data for first item types, storing data associated with first item types in the first database, reading the or one of the second item types in a determining step including determining whether the first database includes the or each prerequisite item necessary to determine the one second item type by obtaining associated data from an operation performed on data associated with at least one item stored in the first data base, storing the one second item type in the first database if the or each prerequisite item is present, successively reading each other second item type and storing it in the first database if the or each prerequisite item is present in the first database and outputting an indication that the system model can be produced if items of the model specification are stored into the first database.

2. The method as claimed in claim 1 wherein each second item type is read successively.

3. The method as claimed in claim 1 or 2 including at least two items of the second type.

4. The method as claimed in any one of claims 1 to 3 incorporating an iterative process of reading second item types not stored in the first database whenever a second item type is stored in the first database.

5. The method as claimed in claim 1 including the step of storing first item types in modules within the first database.

6. The method as claimed in claim 5 wherein each module is configured to perform operations on data associated with first item types having at least one similar characteristic which are stored in the same module.

7. The method as claimed in claim 1 including the step of sorting items and associated data as they are stored in the first database.

8. The method as claimed in claim 1 wherein the system produces an output indication if predetermined items are stored in the first database.

9. The method as claimed in claim 1 including the step of determining whether a second item type can be stored in the first database by associating the second item type with

an item determinant which specifies the or each prerequisite item for evaluation of the second item type.

10. The method as claimed in claim 9 including a determinant step of searching the first database for the or each prerequisite item of the second item type.

11. The method as claimed in claim 10 wherein the determining step includes a Boolean operation which produces a true or false result depending on whether the or each prerequisite item is located in the first database.

12. The method as claimed in claim 11 wherein the first database includes one or more separate storage areas.

13. The method as claimed in claim 12 wherein the result of a determining step is true if prerequisite items are located in the first database.

14. The method as claimed in claim 1 wherein the first item types correspond to input items.

15. The method as claimed in claim 1 wherein the second item types have corresponding item determinants.

16. The method as claimed in claim 1 wherein the second item types are non-input items.

17. The method as claimed in claim 14 including the step of adding a second item type to the first database if the associated item determinant evaluates to true.

18. The method as claimed in claim 17 including the step of providing a consolidated storage array for storing items and for evaluating item determinants.

19. The method as claimed in claim 18 including the step of evaluating the item determinant for each second item type not stored in the first database.

20. The method as claimed in claim 19 including the step of storing in the first database each second item type for which the item determinant is true.

21. The method as claimed in claim 20 including the step of storing second item types in a second database if their associated prerequisite items are not located in the first database.

22. The method as claimed in claim 21 including the step of repeating the evaluating step for any second item type in the second database.

23. The method as claimed in claim 22 including the step of repeating the storage step for each second item type stored in the second database.

24. The method as claimed in claim 23 wherein the evaluating and storing steps are repeated until the storage step results in no additional second item types being added to the first database.

25. The method as claimed in claim 23 including repeating the evaluating and storing steps until all evaluated item determinants are false.

26. The method as claimed in claim 23 wherein the second database comprises a consolidated instance array.

27. The method as claimed in claim 26 including the step of adding second items for which the item instances evaluate to false to the second database.

28. The method as claimed in claim 27 wherein any second item added to the first database after the evaluating step is performed on the second database results in the removal of that second item from the second database.

29. The method as claimed in claim 28 wherein the evaluation step is repeated on second item types remaining in the second database if the second item type is transferred to the first database.

30. The method as claimed in claim 29 including the step of storing formula for second item types in a formula database and evaluating each first and/or second item type stored in the first database in accordance with an associated formula stored in a formula database.

31. The method as claimed in claim 30 including the step of associating with each second item type all of first item types and/or second item types required before the second item type can be evaluated.

32. A method substantially as hereinbefore described with reference to the accompanying drawings.